CABIN VENTILATION AND HEATING FOR OSPREY 2

As you know, cabin ventilation is very important in the Osprey 2, especially in Canada. I think that the main problem we will have is canopy defrosting. Some of you might say who the hell will fly a bird like that in cold weather! I will, maybe with long johns and a fur hat but if I love the airplane I won't feel the cold. Any way in mine, I have two (2) fibreglass tubing 1 1/2" O.D. running in the foam down the hull which brings the heat close to the rudder pedals. From there, a supply duct can be installed to blow hot air towards the canopy plexiglass windows. Those two (2) fibreglass ducts run exactly under the seats and join together in one (1) 2" pipe running up behind the gas tank. A flexible hose is run from the cabin heat muff on one of the mufflers through a heat bowl and from there to this two 2" fibreglass pipe behind the gas tank. A small forced draft fan 12 volts can be added if you feel you don't have enough air circulation. I might have to add an electric heater like in George Burgess's Osprey but time will tell me if my system is good. Regarding the cabin ventilation, the air inlet and defuser is part of the canopy frame. In this position, it's high enough to prevent water from going in when flying the bird from the water. The difuser I used in my plane is from a Toyota car. It gives you the possibility of controlling and adjusting the air flow entering the plane. You also can close it in half a turn. For air circulation, two small exhaust ducts are built in between the two (2) fibreglass skins of the canopy. A filter is added to prevent anything from going in or out through these openings.

(SEE DRAWINGS WITH THIS ISSUE)

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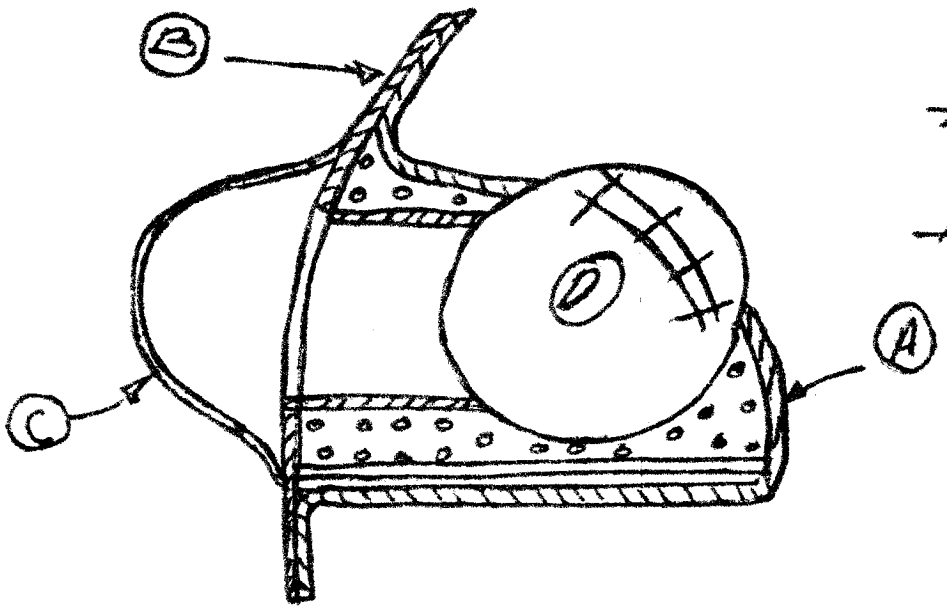
Cabin Ventilation System.



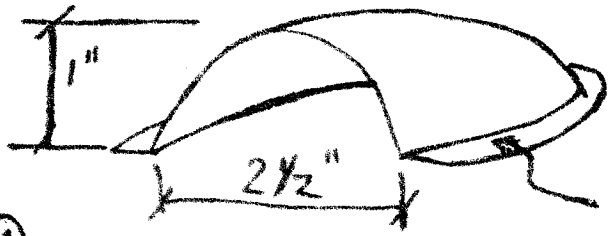
CROSS SECTION OF CANOPY AS PER DRAWING #41

PROCEDURES:

① CUT A 1" OPENING IN FIBERGLASS SKIN "B"

② CUT AN OPENING TO SUIT AIR DIFUSER FROM TOYOTA CAR IN SKIN "A"

③ MAKE A WOOD PATERN & GLASS AIR INTAKE "C" AS PER DIMENSIONS:



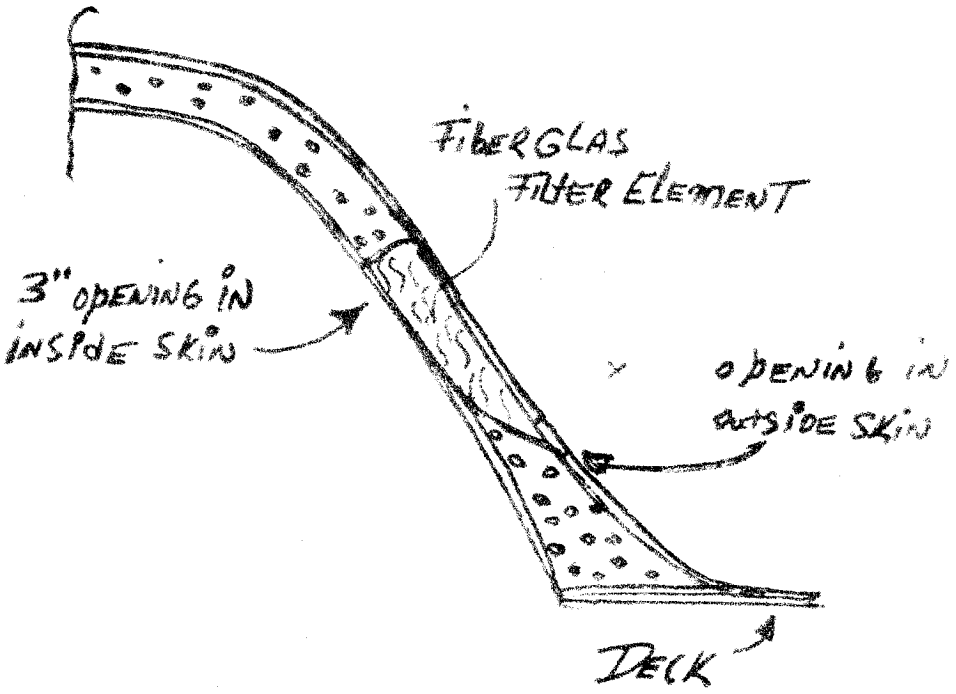
AIR INTAKE TO BE 3" LONG.

② FIBERGLASS LAYERS

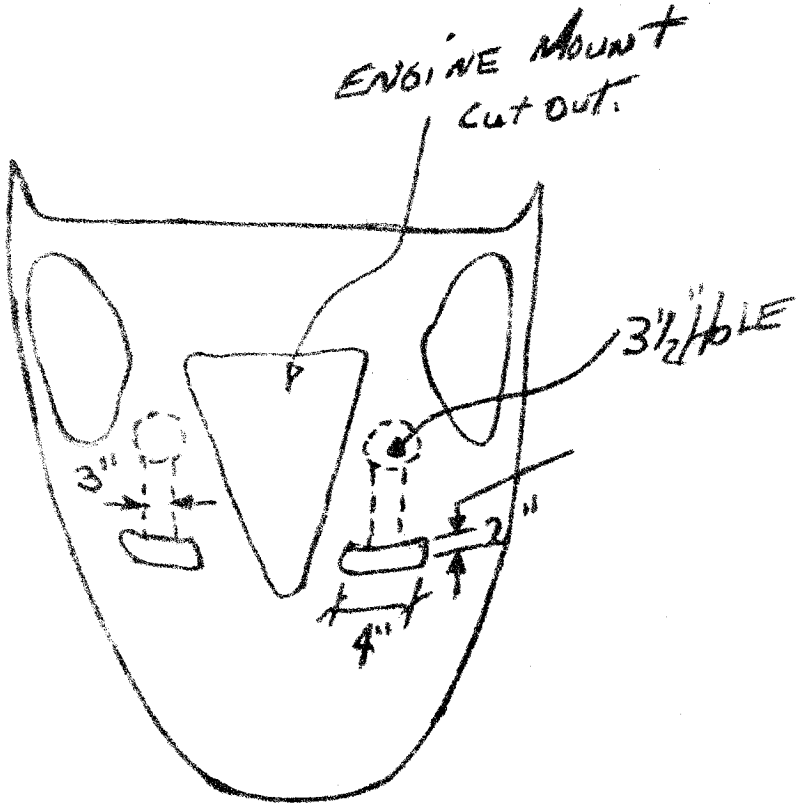
④ FIBERGLASS ALL FOAM WHICH COULD BE IN CONTACT WITH WATER BEFORE FITTING DIFUSER "D"

* SMOOTH EDGES WITH MICRO BALOON FOR BETTER FINISH.

⑤ ALL THIS IS LOCATED IN THE FIRST THIRD OF THE PLEXIGLASS WINDOW.



Cutout View of Back Cabin



Top view of Back Cabin